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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Edouard Francois

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05/16/2005

JOSEPH S. TRIPOLI
THOMSON MULTIMEDIA LICENSING INC.
2 INDEPENDENCE WAY
P. O. BOX 5312
PRINCETON, NJ 08543-5312

EXAMINER

WONG, ALLEN C

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,322

Applicant(s)

FRANCOIS ET AL.

Examiner

Allen Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/23/04 have been fully read and considered but they are not persuasive.

The objection to the abstract is withdrawn.

Regarding line 5 on page 6 of applicant's remarks about claim 1, applicant states that Chen does not disclose "the conversion is performed by a copy of a converted pixel group of a preceding image linked by the motion vector associated with said coded pixel group". The examiner respectfully disagrees. In col.11, ln.9-14, Chen teaches the determination of coding mode is done in that intra-coding or inter-coding are the two coding modes used, as illustrated in fig.3. The switch 325 is activated to let the image data go through to the adder 330, and that the switch 327 is activated to let the image data to go through adder 345 for performing the conversion by copying a converted pixel group of a preceding image. Note the preceding image, compensated in chroma compensators 320 and 325, is linked by motion vector MV associated with the coded pixel group 4:2:2. The format conversion is done from 4:2:2 to 4:2:0. Thus, Chen teaches the conversion is performed by a copy of a converted pixel group of a preceding image linked by the motion vector associated with said coded pixel group.

Regarding lines 3-7 on page 7 of applicant's remarks, applicant asserts that Chen does not disclose "if the mode of coding used is of the 'inter' type with no residue, the conversion is performed by a copy of a converted pixel group of a preceding image linked by the motion vector associated with said coded pixel group." The examiner

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respectfully disagrees. In col.11, ln.9-14, Chen teaches the determination of coding mode is done in that intra-coding or inter-coding are the two coding modes used, as illustrated in fig.3. The switch 325 is activated to let the image data go through to the adder 330, and that the switch 327 is activated to let the image data to got through adder 345 for performing the conversion by copying a converted pixel group of a preceding image. Note the preceding image, compensated in chroma compensators 320 and 325, is linked by motion vector MV associated with the coded pixel group 4:2:2. The format conversion is done from 4:2:2 to 4:2:0. Thus, Chen teaches "if the mode of coding used is of the 'inter' type with no residue, the conversion is performed by a copy of a converted pixel group of a preceding image linked by the motion vector associated with said coded pixel group."

As for claims 7 and 8, applicant argues the same reasons for traversing the rejection of claim 1. However, claims 7 and 8 are rejected for the same reasons as claim 1 as elucidated by the examiner in the above paragraphs. Thus, Chen meets the broad limitations of claims 1, 7 and 8.

Regarding lines 13-17 on page 8, line 21 on page 8 to line 3 on page 9, and lines 7-11 on page 9 of applicant's remarks, applicant mentions that Chen does not disclose "the conversion is performed by a copy of a converted pixel group of a preceding image linked by the motion vector associated with said coded pixel group". The examiner respectfully disagrees. The aforementioned limitation is taught and met for the same reasons as discussed in the above paragraphs. In col.4, ln.34-38 and col.8, ln.38-41, Chen discloses the image data is coded by MPEG and identification of macroblock type.

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Chen does not specifically disclose the coding mode is determined from the "skipped macroblock" or "uncoded" mode. However, Kato's col.24, ln.35-53 teaches the coding mode is determined from the "skipped macroblock" or "uncoded" mode. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Chen and Kato, as a whole, for implementing a simpler, less complex process of accurately determining the coding mode so as to produce clear, high quality images, as disclosed in Kato's col.12, ln.38-55. Thus, claim 4 is rejected for at least the same reasons as claim 1 as explained above.

Therefore, the broad limitations of the claims are met and the rejection is sustained.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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2. Claims 1-3 and 5-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen (6,259,741).

Regarding claims 1, 7 and 8, Chen discloses a process for the format conversion of an image sequence employing video data coded on the basis of a structure of pixel groups (see col.3, ln.32-35 and fig.3, note format conversion goes from pixel groups 4:2:2 to 4:2:0), wherein, for a coded pixel group to be converted, if the mode of coding used is of the "inter" type with no residue, the conversion is performed by a copy of a converted pixel group of a preceding image linked by the motion vector associated with said coded pixel group (col.11, ln.9-14; fig.3, note intra coding mode or inter coding mode is determined, and if inter coding mode is used, switch 325 is activated to pass image data to adder 330 and switch 327 is activated to pass image data to adder 345 so as to perform conversion by copying a converted pixel group of a preceding image, preceding image compensated in chroma compensators 320 and 325, linked by motion vector MV associated with the coded pixel group 4:2:2).

Regarding claim 2, Chen discloses wherein if the motion vector associated with the pixel group is null, the conversion is performed by recopy of the co-located pixel group and, if the motion vector is different from zero, the conversion is performed by motion compensation in a preceding converted image (col.11, ln.6-14 and fig.3, if pixel group is null or zero, the conversion is done by sending the co-located pixel group, and if the motion vector is non-zero, then conversion is performed by motion compensation 320 and 325).

Regarding claim 3, Chen discloses the image data is coded by MPEG and coding block pattern (CBP) is used for identifying the type of macroblock (col.4, ln.34-38 and col.8, ln.38-41).

Regarding claims 5 and 6, Chen discloses the conversion being supplemented with a simple mathematical operation applicable at the decoded pixel group level to modify the display (fig.3, note decoded pixel group is mathematically applied through the inverse quantization 310 and inverse discrete cosine transformation 315, then the output of element 315 is added with offset result from switch element 325).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (6,259,741) in view of Kato (5,701,164).

Regarding claim 4, Chen discloses the image data is coded by MPEG and identification of macroblock type (col.4, ln.34-38 and col.8, ln.38-41). Chen does not specifically disclose the coding mode is determined from the "skipped macroblock" or "uncoded" mode. However, Kato teaches the coding mode is determined from the "skipped macroblock" or "uncoded" mode (col.24, ln.35-53). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Chen and Kato, as a whole, for implementing a simpler, less complex process of accurately

determining the coding mode so as to produce clear, high quality images (Kato col.12, ln.38-55).

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (571) 272-7341. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allen Wong
Primary Examiner
Art Unit 2613

AW
5/9/05